

The Effects of Intersecting Stigma: A Longitudinal Examination of Minority Stress, Mental Health, and Substance Use Among Black, Latino, and Multiracial Gay and Bisexual Men

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Objective: Although Black, Latino, and multiracial gay and bisexual men (GBM) are disproportionately affected by psychological and behavioral health inequities facing GBM more broadly in the United States (Centers for Disease Control & Prevention, 2017), there is a dearth of research examining how their experiences of intersectional stigma contribute to these trends. Based in minority stress and intersectionality theories, this study examined the main and intersectional effects of racial discrimination and gay rejection sensitivity on emotion regulation difficulties, depressive and anxiety symptoms, and later drug use and heavy drinking. **Method:** We collected longitudinal data from 170 GBM of Black, Latino, or multiracial descent. Measurements included baseline racial discrimination, gay rejection sensitivity, and emotion regulation difficulties, 6-month depressive and anxiety symptoms, and baseline to 12-month heavy drinking and drug use. We analyzed data using longitudinal structural equation models. **Results:** Our results indicated that racial discrimination and its interaction with gay rejection sensitivity were significantly associated with higher levels of emotion regulation difficulties, which predicted higher levels of depressive and anxiety symptoms at 6 months, which, in turn, predicted higher levels of heavy drinking, but not drug use, at 12 months. Moreover, the total indirect effect from the stigma variables to heavy drinking was statistically significant. **Conclusions:** These findings indicate that it is critical for researchers and clinicians to consider the effects of intersecting racial and sexual minority stigma on emotion regulation in the persistence of psychological and behavioral health inequities facing Black, Latino, and multiracial GBM.

Keywords: gay and bisexual men, racial discrimination, sexual minority stigma, minority stress intersectionality

Black, Latino, and multiracial lesbian, gay, bisexual, transgender, queer, and two-spirit (LGBTQ2S) people have been disproportionately affected by recent spikes in hate crimes and violence targeting LGBTQ2S communities more broadly (Waters, Pham, Convery, & Yacka-Bible, 2018). Among the community members who have been most affected by identity-related violence are gay and bisexual men (GBM), who are also at highest risk for health outcomes such as mood and anxiety disorders (Bostwick, Boyd, Hughes, & McCabe, 2010), substance use (Talley, Hughes,

Aranda, Birkett, & Marshal, 2014), and several other serious and/or chronic illnesses (Centers for Disease Control & Prevention [CDC], 2017). Despite this evidence of co-occurring victimization and persistent health inequities, there is a dearth of research examining how stigma targeting Black, Latino, and multiracial GBM contributes to these trends (Earnshaw, Bogart, Dovidio, & Williams, 2013). As a result, intervention programs that serve to promote equitable health outcomes often do not reach these men (e.g., Bush et al., 2016). To design effective intervention programs

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to stem these alarming trends, it is critical that research identifies factors such as violence expressed through intersecting racism and homophobia that affect Black, Latino, and multiracial GBM and lead to risk for internalizing symptoms and substance use (Meyer, 2012). Thus, with the present study, we sought to examine the main and intersectional effects of racial and sexual minority stigma on emotion regulation difficulties, depressive and anxiety symptoms, and later drug use and heavy drinking among Black, Latino, and multiracial GBM.

A substantial body of research has used minority stress theory to examine stigma as a form of violence and a source of inequities in psychological health and substance use among GBM broadly. Minority stress theory (Meyer, 2003) posits that several stressors are linked to stigma targeting minority status (e.g., sexual identity), including distal minority stressors in the form of discrimination as well as proximal stressors like expectations of rejection. Hatzenbuehler (2009) described how these stressors manifest among sexual minority individuals, detailing potential psychological pathways through which stigma-related stress leads to psychological and behavioral outcomes. This framework posits that the distal stigma-related stressors detailed in Meyer (2003) lead to increased experiences of proximal stressors (e.g., rejection sensitivity), which are linked to psychological processes such as emotion regulation difficulties that, in turn, lead to depressive symptoms, anxiety, and substance use (Pachankis, Hatzenbuehler, Rendina, Safren, & Parsons, 2015).

There is a body of research that provides evidence for this stress process that shows sexual minority stigma is associated with emotion regulation difficulties (Pachankis, Rendina, et al., 2015; Rendina et al., 2017), depressive and anxiety symptoms (Lewis, Derlega, Griffin, & Krowinski, 2003), substance use (Hatzenbuehler, Nolen-Hoeksema, & Erickson, 2008), posttraumatic stress (Herek, Gillis, & Cogan, 1999), suicidality (Hershberger & D'Augelli, 1995), and lower self-esteem (Huebner, Rebchook, & Kegeles, 2004). In addition, there is an emerging literature suggesting that racial discrimination experienced by Black, Latino, and multiracial GBM is associated with these negative psychological and behavioral health outcomes (Bogart et al., 2011; Bostwick, Boyd, Hughes, West, & McCabe, 2014; Yoshikawa, Wilson, Chae, & Cheng, 2004). Moreover, research also shows that these men are at unique risk for experiencing minority stress because they face sexual minority discrimination within their racial group and racial discrimination within their sexual minority group (Choi, Paul, Ayala, Boylan, & Gregorich, 2013).

This empirical work notwithstanding, there has been relatively less empirical inquiry regarding how racial stigma and sexual minority stigma interact to affect the stress process that puts Black, Latino, and multiracial GBM at unique risk for inequities in psychological symptoms and substance use. Intersectionality theory provides an ideal lens through which to consider this process, as it asserts that multiple social positions associated with race, gender, socioeconomic status, sexual identity, and/or disability intersect at the individual level and reflect multiple and reciprocal systems of societal oppression (e.g., racism and heterosexism) that affect Black, Latino, and multiracial GBM (Collins, 1998; Crenshaw, 1991). Indeed, the intersectionality framework posits that social identities are not isolated from one another and simply additive but rather are interdependent and mutually constitutive (Collins & Bilge, 2016). As such, rather than conceptualizing stigma-related stress in a way

that assumes stigma experiences can be broken down as a sum of stress associated with an individual's privileged or disadvantaged identities (e.g., racial stress + sexual minority stress), an intersectional approach suggests that different forms of stigma should be tested as multiplicative, such that the effects of one form of stigma are dependent on that of other forms of stigma (Bowleg, 2008).

Extant, albeit limited, research suggests that racial and sexual minority stigma may interact to predict psychological and behavioral outcomes among Black, Latino, and multiracial GBM. For example, in a qualitative study of 71 Black GBM with HIV, HIV-related stigma, homophobia, and racism were interrelated and associated with participants' sexual risk behavior, reluctance to obtain HIV testing or care, lower adherence to treatment, and less disclosure of a positive HIV status to sexual partners (Arnold, Rebchook, & Kegeles, 2014). In addition, though their hypotheses were tested in an additive manner (i.e., the sum of different types of discrimination predicting outcomes), results from Bostwick and colleagues (2014) and Grollman (2014) suggest that sexual identity discrimination, gender identity discrimination, and racial discrimination are most impactful when experienced in the presence of one or several other forms of discrimination. Moreover, in an intersectional quantitative study of 181 Black GBM with HIV, researchers found that racial, sexual identity, and HIV discrimination interacted to predict higher levels of depressive symptoms, though none of the individual main effects from these forms of discrimination were associated with depressive symptoms (Bogart et al., 2011). Although these studies provide important evidence linking the intersection of multiple forms of stigma facing Black, Latino, and multiracial GBM, we are unaware of any studies that have measured multiple forms of stigma and their interaction longitudinally while also modeling potential mediators of their effects on relevant health outcomes as detailed in theories of minority stress and intersectionality.

We conducted the present study to inform intervention efforts to stem the negative effects of racist and homophobic violence by deepening the understanding of how racial and sexual minority stigma interact to contribute to health inequities for Black, Latino, and multiracial GBM. Specifically, we examined the main and interaction effects of racial discrimination—an enacted form of racial stigma—and gay rejection sensitivity—an anticipated, proximal form of sexual minority stigma (Pachankis, Goldfried, & Ramrattan, 2008)—within an intersectional, minority stress model. We focused on the extent to which these stressors are associated with emotion regulation difficulties and internalizing symptoms (i.e., depressive and anxiety symptoms) that, in turn, are associated with increased substance use over time. We took an intersectional quantitative approach by estimating an interaction between racial discrimination and gay rejection sensitivity (Bowleg & Bauer, 2016). In doing so, the present study combines minority stress theory and intersectionality theory to detail a stress process experienced by Black, Latino, and multiracial GBM. We hypothesized the following:

Hypothesis 1: Both gay rejection sensitivity and racial discrimination will have positive main effects on emotion regulation difficulties, which will predict higher levels of depressive and anxiety symptoms that will, in turn, predict increases in drug and alcohol use.

Hypothesis 2: The interaction between gay rejection sensitivity and racial discrimination will be associated with emotion regulation difficulties such that at higher levels of each stressor, there will be multiplicatively higher rates of emotion regulation difficulties that will predict internalizing symptoms and increases in drug and alcohol use.

Method

We conducted the analyses for this article using baseline, 6-month, and 12-month follow-up data from *Pillow Talk*, a longitudinal study that focused on issues related to sexual compulsivity among highly sexually active GBM in New York City. The primary goal of the study was to enroll sexual minority men who varied based on the amount of problems caused by high amounts of sexual activity. Although the study recruited sexual minority men generally, all of the men who enrolled identified as gay/queer or bisexual. Of the 376 men enrolled in the study, 170 (45.2%) identified as Black, Latino, or multiracial—of these 170 participants, 76 identified as Black (44.7%), 51 identified as Latino (30.0%), and 43 identified as multiracial (25.3%). These 170 participants provided at least baseline data and were the sample of interest for our analyses.

Participants and Procedures

We recruited participants through the following strategies: (a) respondent-driven sampling, (b) Internet-based advertisements on social and sexual networking websites, (c) e-mail blasts through New York City gay sex party listservs, and (d) active recruitment in New York City venues such as gay bars/clubs and ongoing sexual minority community events. Participants completed a brief interview screener over the phone to confirm eligibility. Criteria were (a) at least 18 years of age; (b) biologically and self-identified as male; (c) at least nine male sexual partners in the past 90 days (i.e., highly sexually active; Pachankis, Rendina, et al., 2015); (d) self-identification as gay, bisexual, or another nonheterosexual identity; (e) able to complete assessment in English; and (f) daily access to the Internet to complete Web-based study modules. We confirmed eligibility criteria at the in-person baseline appointment.

We excluded participants from the study if we found evidence of significant cognitive impairment, as indicated by a score of 23 or lower on the Mini-Mental Status Examination (Folstein, Folstein, & McHugh, 1975), or found evidence of active symptoms of suicidality or psychosis on the Structured Clinical Interview for the Diagnostic and Statistical Manual-Text Revision (*DSM-IV-TR*) (First, Spitzer, Gibbon, & Williams, 2002), since these symptoms would have interfered with their participation and may have limited their ability to provide informed consent. Participants completed both Web-based assessments and in-office assessments. Study staff confirmed participant eligibility over the phone through a short series of questions and obtained the participants' informed consent. Overall, 79% of participants who completed the phone prescreening were eligible for the study, and of those screened, 62% enrolled in the study.

Once the participant consented over the phone, a staff member sent a link to complete an initial 1-hr, Web-based survey. Study staff received informed consent from participants again during follow-up, in-person assessments in the research office. This arti-

cle focuses on self-report data collected during the baseline and 6-month at-home surveys as well as the baseline and 12-month timeline follow-back (TLFB) data collected in-office. We compensated participants \$50 for the baseline assessment, \$55 for the 6-month assessment, and \$60 for the 12-month assessment. The Institutional Review Board of the City University of New York reviewed and approved all study procedures.

Measures

Demographics. Participants reported several demographic characteristics including age, race/ethnicity, sexual orientation, relationship status, and employment status. Participants also documented their HIV-positive status or had an HIV test to confirm negative status. We referred three participants who received a preliminary HIV-positive result to confirmatory testing and linkage to care at a local HIV clinic. Data from these three participants are not part of the present analyses.

Racial discrimination. We used the race version of the Everyday Discrimination Scale (Williams, Yan, Jackson, & Anderson, 1997), which asks about experiences in daily life that occur as a result of the participant's race. The scale consists of nine items (e.g., "you are treated with less courtesy than other people") that are rated on a scale from 1 (*never*) to 6 (*almost every day*). Thus, frequency index scores range from 9 to 54. The items ask about general experiences of racial discrimination that are not specific to stereotypes associated with a given racial group in the United States. The scale has shown validity in its association with psychological and physical health outcomes among a racially diverse sample (Williams et al., 1997). Items served as indicators of a racial discrimination latent variable in the models described later. In the present study, this scale demonstrated good internal consistency ($\alpha = .95$) at baseline among the analytic sample.

Gay rejection sensitivity. We administered the Gay Rejection Sensitivity scale, a measure used to assess internalized stigma among GBM (Pachankis et al., 2008). The measure consists of 14 vignettes (e.g., "You are in a locker room in a straight gym. One guy nearby moves to another area to change clothes.") to which participants respond regarding how concerned they would be if the situation occurred as a result of their sexual orientation from 1 (*very unconcerned*) to 6 (*very concerned*) and how likely it would be that the situation occurred because of their sexual orientation from 1 (*very unlikely*) to 6 (*very likely*). Consistent with the rejection sensitivity paradigm (Downey & Feldman, 1996), we multiplied concern and likelihood responses for each vignette. These scores served as indicators of a rejection sensitivity latent variable in the models described later. We excluded Item 1 ("You bring a male partner to a family reunion. Two of your old-fashioned aunts don't come talk to you even though they see you"), Item 9 ("Only you and a group of macho men are on a subway train late at night. They look in your direction and laugh"), Item 5 ("You are going to have surgery, and the doctor tells you that he would like to give you an HIV test"), and Item 3 ("You've been dating someone for a few years now, and you receive a wedding invitation to a straight friend's wedding. The invite was addressed only to you, not you and a guest.") because they had factor loadings below our set threshold of 0.60. Several of these

items had relatively low factor loadings in the development and validation of this measure. The overall measure showed both convergent and discriminant validity with parental rejection, internalized homophobia, and unassertive interpersonal behavior among gay men (Pachankis et al., 2008). In the present study, the scale showed good internal consistency ($\alpha = .91$) at baseline.

Emotion regulation difficulties. Participants completed the 36-item Emotion Regulation Difficulties Scale (DERS; Gratz & Roemer, 2004), which measures general problems in regulating emotions. Participants responded on a scale from 1 (*almost never* [0%–10%]) to 5 (*almost always* [91%–100%]). Subscales for the DERS include the Nonacceptance subscale (e.g., “when I’m upset, I feel like I am weak”), the Goals subscale (e.g., “When I’m upset, I have difficulty getting work done”), the Impulse subscale (e.g., “When I’m upset, I feel out of control”), the Awareness subscale (e.g., “I am attentive to my feelings”), the Strategies subscale (e.g., “When I’m upset, I believe that wallowing in it is all I can do”), and the Clarity subscale (e.g., “I am confused about how I feel”). The scale has shown construct validity and predictive validity with other emotion regulation measures and behavioral outcome scales, respectively (Gratz & Roemer, 2004). We excluded the Awareness subscale in this study because it had a low factor loading (0.25), which is consistent with past studies of the DERS factor structure in which the Awareness subscale showed weak latent factor inter-correlations and authors recommended that it be removed from the full-scale DERS (Bardeen, Fergus, & Orcutt, 2012). Subscale scores served as indicators of an emotion regulation difficulties latent variable in the models described later. In the present study, this scale demonstrated good internal consistency ($\alpha = .90$) at baseline.

Internalizing symptoms. Participants completed the Anxiety and Depression subscales of the Brief Symptom Inventory (Derogatis & Melisaratos, 1983). Each of the subscales consists of six items that measure symptoms of depression (e.g., “feeling worthlessness”) or anxiety (e.g., “feeling tense or keyed up”) in the previous week. Response options range from 0 (*not at all*) to 4 (*extremely*), and each subscale score is calculated by averaging across its six items. The Brief Symptom Inventory has shown good convergent and construct validity (Derogatis & Melisaratos, 1983). Subscale scores served as indicators of an internalizing symptoms latent variable in the present study. The Depression ($\alpha = .89$) and Anxiety ($\alpha = .88$) subscales demonstrated good internal consistency at baseline in the present study.

Drug use and heavy drinking. Participants completed a 42-day TLFB interview of their drug and alcohol use (Sobell & Sobell, 1996). Using a calendar, a research assistant coded whether any substance use occurred on a given day. On days when substance use occurred, research assistants coded the presence of heavy drinking (five or more alcoholic drinks) and/or the type of drug used (cocaine, crack, ecstasy, gamma-hydroxybutyrate (GHB), hallucinogens, heroin/other opiates, ketamine, marijuana, or methamphetamine). For the purposes of this article, we created dichotomous indicators of whether the participant had engaged in heavy drinking and whether they had taken any of the nine drugs on a day. As such, heavy drinking and drug use days were count variables that ranged from 0 to 42 days for each participant. Past research suggests that this TLFB method provides an accurate picture of substance use across 42 days, even in comparison with

daily diary methods (Rendina, Moody, Ventuneac, Grov, & Parsons, 2015).

Analysis Plan

Before testing the hypothesized model, we ran confirmatory factor analyses (CFAs) on each of the variables we specified as latent, namely, racial discrimination, gay rejection sensitivity, emotion regulation difficulties, and internalizing symptoms. If needed, we ran several models to ensure factor loadings above 0.60 and acceptable model fit based on accepted indices (Hu & Bentler, 1999). We tested study hypotheses that racial discrimination, gay rejection sensitivity, and their interaction would predict increases in heavy drinking and drug use through positive associations with emotion regulation difficulties and internalizing symptoms within a longitudinal structural equation model analyzed using *Mplus* 7.31 (Muthén & Muthén, 1998–2012). In this model, we tested main effects of a latent racial discrimination variable at baseline and a latent gay rejection sensitivity variable at baseline on a latent emotion regulation difficulties variable at baseline. In addition, we used the XWITH function within a random-effects model to construct a latent variable interaction between racial discrimination and gay rejection sensitivity and regressed emotion regulation difficulties on that interaction variable. The model included pathways from emotion regulation difficulties at baseline to a latent internalizing symptoms variable at 6 months and from internalizing symptoms at 6 months to the heavy drinking and drug use count variables at 12 months (Figure 1). We regressed heavy drinking and drug use on their baseline measurement to isolate change in the variables across time. As such, the mediation pathway predicted unique variance in the 12-month substance use variables. Within this model, we included conceptually relevant pathways from control variables including baseline measurements of race/ethnicity, age, HIV status, and sexual orientation to emotion regulation difficulties, racial discrimination, and gay rejection sensitivity. We tested for the indirect effects of racial discrimination, gay rejection sensitivity, and the latent variable interaction using the Model Constraint command, as Model Indirect is not available in random-effects models.

We specified baseline and 12-month heavy drinking and drug use as count variables with negative binomial distributions, which account for overdispersion in the distribution that arises from a high range of responses. We set the variance of all latent variables to 1. There was significant residual covariance between some adjacent items in the racial discrimination measure (Items 1–2, 5–6, and 8–9) and gay rejection sensitivity measure (Items 11–12), as identified using the MODINDICES function in *Mplus*, which we freed the model to estimate.

After running the hypothesized model, we also ran two models that examined the direct effects from racial discrimination, gay rejection sensitivity, and the interaction variable to drug use, heavy drinking days, and internalizing symptoms. Since there are no fit indices for models with count outcomes, these analyses allowed us to determine the appropriateness of excluding these direct paths in the aforementioned model. We ran a model that included the direct

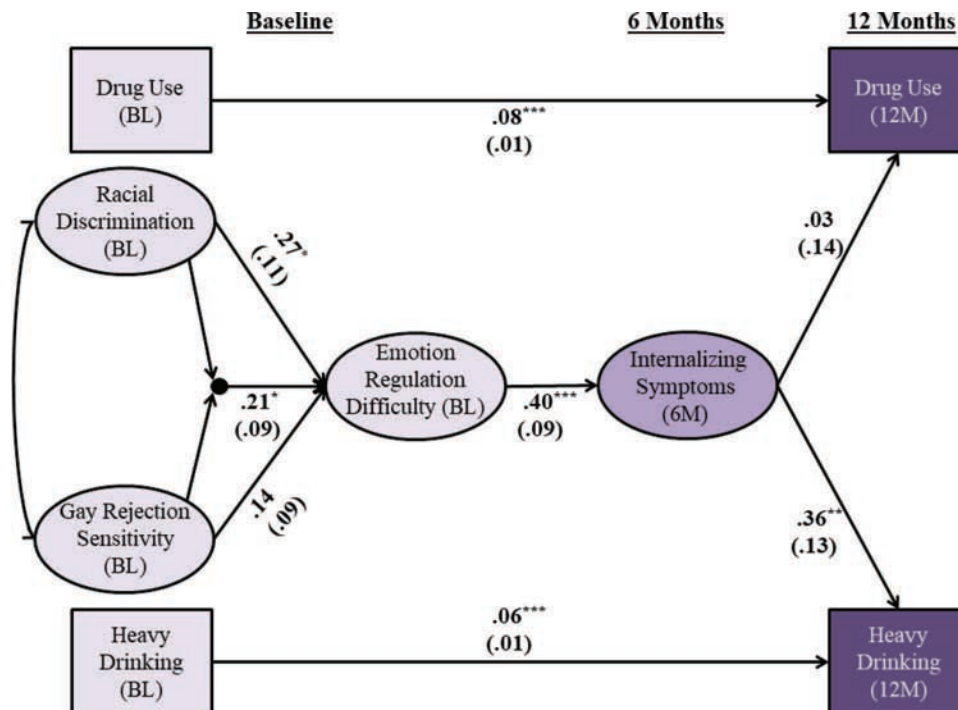


Figure 1. Mediation model results. * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$. Substance use outcomes are negative binomial distributed counts. Notation for the latent variable interaction is line with Muthén (2012). For simplicity, indicators are not displayed for latent variables. BL = baseline; 6M = 6 months; 12M = 12 months. This model is adjusted for baseline measurements of race/ethnicity, age, HIV status, and sexual orientation. See the online article for the color version of this figure.

effects on the internalizing symptoms latent variable at 6 months and then a second that included direct effects to the substance use variables at 12 months.

Missing data represent a concern across all longitudinal studies. For each of the variables, the following were the rates of complete data: baseline racial discrimination (100%), baseline gay rejection sensitivity (100%), baseline emotion dysregulation (100%), baseline heavy drinking (100%), baseline drug use (100%), 6-month anxiety symptoms (85%), 6-month depressive symptoms (85%), 12-month heavy drinking (82%), and 12-month drug use (82%). In the case of missing data, *Mplus* 7.31 software uses a full information maximum likelihood estimator under the assumption that the data are missing at random (Arbuckle, 1996), which is a widely accepted way of handling missing data (Schafer & Graham, 2002). We found the missing at random assumption to be acceptable because there were no significant differences between participants with missing data and those without missing data across any variable included in this study. Thus, we handled missing data in line with the *Mplus* default, using all available data to estimate the model (Muthén & Muthén, 1998–2012) along with Monte Carlo integration.

Results

Table 1 contains the demographic characteristics of the sample. The majority of the participants were Black/African American, gay-identified, single, and HIV-positive. The sample was 35 years old on average and ranged from 18 to 63 years old. The average

number of heavy drinking days was 6.09 ($Mdn = 3$) at baseline and 5.25 ($Mdn = 3$) at 12-month follow-up, whereas drug use days was 11.74 ($Mdn = 6$) at baseline and 12.21 ($Mdn = 5$) at 12-month follow-up.

Table 2 displays the descriptive statistics and bivariate correlations for each of the observed variables of interest. Racial discrimination was significantly positively correlated with gay rejection sensitivity, emotion regulation difficulties, and heavy drinking days at baseline. Racial discrimination was also significantly correlated with race/ethnicity and sexual orientation, such that gay and Black participants were more likely to report racial discrimination. Gay rejection sensitivity was significantly positively correlated with emotion regulation difficulties. Emotion regulation difficulties was significantly positively correlated with anxiety symptoms, depressive symptoms, and drug use days at baseline and 12 months. Emotion regulation difficulties was also significantly correlated with age and race/ethnicity, such that Latino and younger participants reported more emotion regulation difficulties. Additional correlations between study variables are provided in Table 2.

Regarding specification of latent variables, a CFA indicated that a nine-item, one-factor specification of the racial discrimination variable fit the data adequately, $\chi^2(24) = 65.66$, $p < .001$, comparative fit index (CFI) = 0.97, Tucker–Lewis index (TLI) = 0.96, root mean square error of approximation (RMSEA) = 0.10. Standardized factor loadings across the racial discrimination items ranged from 0.64 to 0.90 in the CFA, and unstandardized factor

Table 1
Demographic Characteristics of the Sample

Variable	<i>n</i>	%
Race/ethnicity		
Black	76	42.7
Latino	51	30.0
Multiracial	43	25.3
Sexual orientation		
Gay, queer, or homosexual	145	85.3
Bisexual	25	14.7
Heterosexual/straight	0	0
Other	0	0
Employment status		
Full-time	45	26.5
Part-time	33	19.4
Student (unemployed)	20	11.8
Unemployed	45	26.5
On disability	27	15.9
Highest educational attainment		
High school diploma/general equivalency diploma or less	29	17.1
Some college or associate's degree	73	42.9
Bachelor's or other 4-year degree	43	25.3
Graduate degree	25	14.7
HIV status		
Positive	97	57.1
Negative	73	42.9
Relationship status		
Single	114	67.1
Partnered	56	32.9
	<i>M</i>	<i>SD</i>
Age (range: 18–63, <i>Mdn</i> = 33)	35.45	10.45
Number of drug use days baseline (<i>Mdn</i> = 6)	11.74	14.06
Number of drug use days 12 months (<i>Mdn</i> = 5)	12.21	15.32
Number of heavy drinking days baseline (<i>Mdn</i> = 3)	6.09	8.71
Number of heavy drinking days 12 months (<i>Mdn</i> = 3)	5.25	8.15

loadings¹ across these items ranged from 1.39 to 0.79 in the full model depicted in Figure 1. A CFA indicated that a 10-item, one-factor rejection sensitivity variable showed adequate model fit, $\chi^2(34) = 70.46, p < .001$, CFI = 0.96, TLI = 0.94, RMSEA = 0.08. Standardized factor loadings across the gay rejection sensitivity items ranged from 0.62 to 0.77, and unstandardized factor loadings across these items ranged from 8.96 to 6.63 within the full model. Another CFA indicated that a five-indicator, one-factor specification of the emotion regulation difficulties variable fit the data adequately, $\chi^2(5) = 28.74, p < .01$, CFI = 0.96, TLI = 0.92, RMSEA = 0.16. Standardized factor loadings across all emotion regulation difficulty items ranged from 0.70 to 0.97, and unstandardized factor loadings across these items ranged from 0.44 to 0.81 within the full model. For the internalizing symptoms variable specification, although fit statistics cannot be produced in an underidentified model (i.e., a latent variable with two indicators), standardized factor loadings were high at 0.90 (Anxiety subscale) and 0.87 (Depression subscale) within the CFA, and unstandardized factor loadings were 0.67 and 0.58, respectively, within the full model.

Figure 1 depicts the mediation model in which racial discrimination, gay rejection sensitivity, and their interaction predicted heavy drinking and drug use through emotion regulation difficulties and internalizing symptoms. Baseline racial discrimination ($b = 0.27, SE = 0.11, p = .02$) and the interaction between

baseline gay rejection sensitivity and racial discrimination ($b = 0.21, SE = 0.09, p = .03$) were both significantly and positively associated with baseline emotion regulation difficulties. The pattern of the interaction is depicted in Figure 2 and indicates that emotion regulation difficulties was highest at higher levels of racial discrimination and gay rejection sensitivity. The association between baseline gay rejection sensitivity ($b = 0.14, SE = 0.09, p = .13$) and emotion regulation difficulties was not significant. Emotion regulation difficulties ($b = 0.40, SE = 0.09, p < .001$) was significantly associated with internalizing symptoms at 6 months, which, in turn, predicted heavy drinking at 12 months ($b = 0.36, SE = 0.13, p = .004$). Internalizing symptoms at 6 months did not predict drug use at 12 months ($b = 0.03, SE = 0.14, p = .85$). Regarding covariates, the emotion regulation difficulties variable was significantly positively associated with HIV status ($b = 0.46, SE = 0.18, p = .01$) and negatively associated with age ($b = -0.03, SE = 0.18, p = .001$). Racial discrimination and gay rejection sensitivity were not associated with any covariates.

The indirect effect results revealed that the indirect pathways from the interaction ($b = 0.03, SE = 0.02, p = .10$), racial discrimination ($b = 0.04, SE = 0.02, p = .09$), and gay rejection sensitivity ($b = 0.02, SE = 0.02, p = .20$) were not significant. However, the total indirect effect from these three predictors combined was statistically significant ($b = 0.09, SE = 0.04, p < .05$).

Since the count outcomes of drug use and heavy drinking made it impossible to produce model fit statistics, we sought to explore whether the model was misspecified in leaving out the direct pathways from stigma to internalizing and substance use (i.e., constraining them to be 0). We did this by iteratively testing direct effects from racial discrimination, gay rejection sensitivity, and their interaction to internalizing symptoms, drug use, and heavy drinking. Due to the large number of paths in the model, the results of this model are displayed in Table 3 rather than in a figure. We ran the model with the same specifications as the model in Figure 1, with the exception that it included direct effects from the aforementioned baseline predictor variables to the 6-month latent internalizing symptoms variable (first model) and the 12-month substance use variables (second model). None of the direct effects were significant, suggesting that the original model was well-specified and that the assumption of a lack of direct effects was adequate.

Discussion

Despite the persistence of interpersonal violence and health inequities facing Black, Latino, and multiracial GBM in the United States, few studies have examined the connection between intersecting stigma and critical health outcomes for these men. With the present study, we sought to add to the understanding of how the intersection of racial and sexual minority stigma leads to the stress process that predicts substance use through its effects on emotion regulation difficulties and psychological symptoms among Black, Latino, and multiracial GBM. Results from this study showed that racial discrimination was individually positively associated with

¹ Standardized factor loadings are not available for models that include negative binomial regressions.

Table 2

Correlations Among Minority Stress and Internalizing Variables and Demographic Covariates

Variable	1	2	3	4	5	6	7	8	9
1. Racial discrimination (BL)	1.0								
2. Gay rejection sensitivity (BL)	0.19*	1.0							
3. Emotion regulation difficulties (BL)	0.20**	0.15*	1.0						
4. Anxiety symptoms (6M)	0.09	0.15	0.30***	1.0					
5. Depressive symptoms (6M)	0.09	0.15	0.37***	0.79***	1.0				
6. Heavy drinking (12M)	0.13	0.03	0.15	0.00	0.11	1.0			
7. Drug use (12M)	-0.03	-0.16	0.24**	-0.11	-0.01	0.18*	1.0		
8. Heavy drinking (BL)	0.16*	-0.04	0.04	-0.08	-0.07	0.58***	0.20*	1.0	
9. Drug use (BL)	-0.08	-0.14	0.21**	-0.04	0.01	0.14	0.75***	0.29***	1.0
10. Age	0.02	-0.02	-0.22**	-0.24**	-0.25**	-0.18*	-0.11	0.01	0.03
11. Black (1 = yes)	0.15*	0.00	-0.15*	-0.15	-0.17*	-0.05	0.09	0.06	-0.03
12. Latino (1 = yes)	-0.06	0.01	0.16*	-0.06	-0.07	-0.06	-0.10	-0.12	-0.05
13. Sexual orientation (1 = bisexual)	-0.17*	-0.13	-0.10	0.01	0.01	-0.17*	-0.11	-0.03	0.02
14. HIV status (1 = positive)	-0.04	0.04	0.07	-0.10	-0.08	-0.13	0.14	-0.01	0.26***
<i>M</i>	23.05	13.80	2.34	0.66	0.89	5.25	12.21	6.09	11.74
<i>SD</i>	11.06	8.45	0.77	0.77	0.82	8.15	15.32	8.71	14.06
Cronbach's α	.95	.92	.90	.89	.88	—	—	—	—

Note. All correlations are with observed scores. The estimates presented are Pearson's r , with the exception of those with heavy drinking variables (6 and 7), for which Spearman's ρ is used due to the nonparametric nature of the count data. BL = baseline; 6M = 6 months; 12M = 12 months.

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

emotion regulation difficulties, which predicted later internalizing symptoms that, in turn, predicted later heavy drinking among Black, Latino, and multiracial GBM. Gay rejection sensitivity was not individually significantly associated with emotion regulation difficulties, though we found there was a significant interaction between gay rejection sensitivity and racial discrimination, such that, at higher levels of each construct, there were multiplicatively higher levels of emotion regulation difficulties. Moreover, the total indirect effect from gay rejection sensitivity, racial discrimination,

and their interaction to heavy drinking through emotion regulation and internalizing symptoms was significant and positive. Taken together, these results suggest, although racial stigma and sexual minority stigma are often examined in isolation, the psychological and behavioral effects of each are not mutually exclusive for Black, Latino, and multiracial GBM and, thus, are better understood when examined in the context of the other.

Our results did not support the hypothesis that the stigma-related stress process would result in greater levels of drug use. One

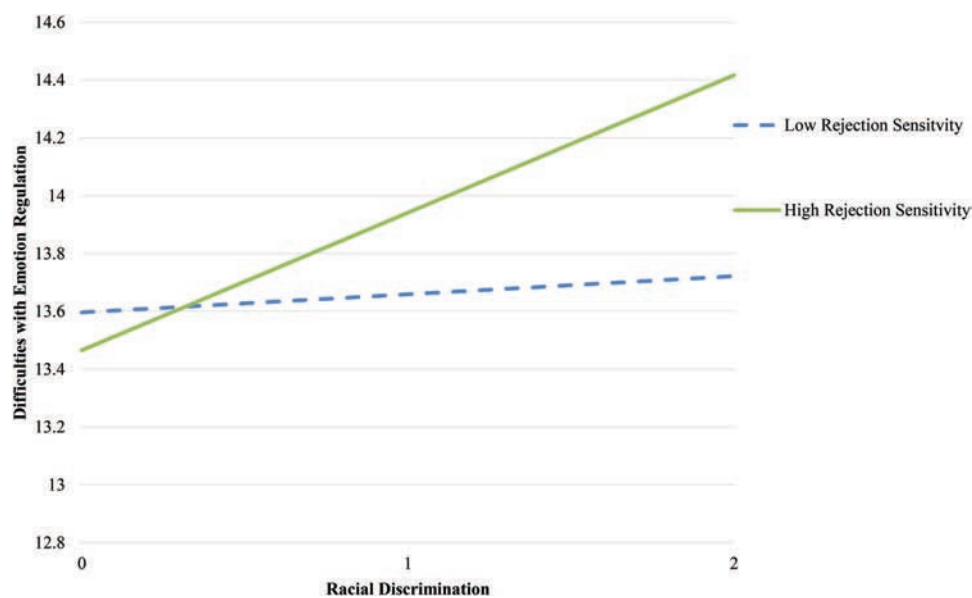


Figure 2. Interaction of racial discrimination and gay rejection sensitivity on emotion regulation. Graph set at the mean of emotion regulation, though it is measured as a latent variable. The rejection sensitivity variable is arbitrarily set as the moderator in this graph, as the interaction variable is conceptualized as having equal contributions of each variable. See the online article for the color version of this figure.

Table 3
Exploratory Structural Equation Model With Direct Effects of Stigma Variables on Internalizing and Substance Use Variables

Variable	Internalizing symptoms (6M)			Heavy drinking (12M)			Drug use (12M)		
	β	SE	p	b	SE	p	b	SE	p
Racial discrimination (BL)	.08	.10	.39	-.05	.13	.73	.27	.16	.09
Gay rejection sensitivity (BL)	-.01	.11	.91	.11	.14	.42	-.18	.14	.19
Interaction (BL)	-.10	.11	.34	-.13	.13	.34	.29	.16	.08

Note. BL = baseline.

possible explanation for this is that the drug use variable included several so-called “club drugs” (ketamine, 3,4-methylenedioxy-methamphetamine (MDMA)/ecstasy, GHB, and methamphetamine). Club drugs are most commonly used in social situations, and it is possible that with higher levels of anxiety and depressive symptoms among the participants that they were more socially isolated and, as a result, less likely to engage in use where club drugs are the most common: bars, nightclubs, concerts, and parties (National Institute on Drug Abuse, 2017).

Strengths and Limitations

The present study had several strengths worth noting that support the validity and impact of our results. First, we used longitudinal data with three time points to model a stress process that extended minority stress theory. Indeed, it is one of the few projects that has blended intersectionality and minority stress theories, as it considered racial stress in addition to, and in combination with, the more commonly studied sexual minority stress for Black, Latino, and multiracial GBM, the groups at highest risk for several severe chronic illnesses (CDC, 2017). This study also presented a relatively strong statistical test of our conceptual model, given we measured each of the independent variables as latent variables, which reduces measurement error inherent in path models with observed variables.

In addition to these strengths, this study had limitations that are important to note. First, although this study is one of relatively few that has focused on Black, Latino, and multiracial GBM, and the sample size was adequate for analyses, a larger sample would provide the ability to examine heterogeneity within the sample. Indeed, future research can build on the present study to consider how this stress model varies among subgroups (e.g., Black GBM and Latino GBM), given there is considerable variance in sexual minority experiences and cultural narratives within these broad categories. As such, it will be particularly important to consider heterogeneity within as well as between these broad categories since, for example, there are a range of racial/ethnic identities within Black, Latino, and multiracial communities. In addition, it will be important to examine this model with a general sample, in addition to this highly sexually active sample, as heavy drinking and drug use tend to be more common among highly sexually active GBM (Rendina et al., 2017). The current study was also limited because, although we engaged in intersectional data analyses and interpretation, we did not measure intersectional experiences of discrimination. That is, we did not ask about stress associated with being a sexual minority man of color, including

specific within-group cultural narratives (Balsam, Molina, Beadnell, Simoni, & Walters, 2011; Bowleg et al., 2016), but asked about discrimination based on identities as if they were separate. In addition, although we incorporated several of the aspects of the minority stress model, we measured proximal (gay rejection sensitivity) and distal (racial discrimination) stigma variables and emotion regulation difficulties concurrently rather than testing for temporal precedence. Additional participants and follow-up data would allow for the testing of a more rigorous model such as a longitudinal autoregressive mediation model (Maxwell & Cole, 2007) that tests reciprocal associations between proximal and distal stigma variables as well as links between emotion regulation, psychological symptoms, and substance use. These limitations notwithstanding, there are several important implications for our findings in this study.

Research Implications

The finding that racial discrimination was associated with difficulties in emotion regulation, internalizing symptoms, and heavy drinking supports major tenets of the minority stress model (Hatzenbuehler, 2009; Meyer, 2003) and past studies linking emotion regulation difficulties to internalizing symptoms and alcohol use (Berking & Wupperman, 2012). Critically, the present results extend the minority stress model to include the intersection of racial and sexual minority stigma as predictors of this stress process. Indeed, our finding that the effects of both racial discrimination and gay rejection sensitivity were more impactful in the presence of the other provides support for a central tenet of intersectionality theory that the experiences associated with different social positions are inextricably intertwined and should be considered together (Bowleg, 2008). Indeed, although racial discrimination did, and gay rejection sensitivity did not, have a significant main effect on emotion regulation difficulties, they showed a significant combined effect on heavy drinking through emotion regulation and internalizing symptoms. As such, it is critical that researchers and practitioners alike not only work to understand the effects of racial and sexual minority stigma for Black, Latino, and multiracial GBM, but also consider the interaction effects of these stressors.

Clinical and Policy Implications

These results also have important implications for intervention. First, it is critical to acknowledge that unmeasured, yet driving forces of the stress process modeled in this article are historically

rooted and contemporaneously perpetuated structural racism and heterosexism that promote prejudice and discrimination and systematically distribute power and privilege to White and heterosexual men in the United States (Kimmel & Ferber, 2016). As such, structural interventions that incorporate a critical equity stance on research, public policy, and institutional reform and aim to reduce and/or eliminate the structural inequities that disproportionately affect Black, Latino, and multiracial GBM will be the most powerful forms of prevention when considering the stress process we model in the present study (Bowleg, 2017). Such interventions may involve training educators to lead discussions and activities to aid students in reflection and social action to dismantle privilege in United States society (Case, 2013). They could also include reducing prejudice through extended contact within desegregated peer environments within schools (Zhou, Page-Gould, Aron, Moyer, & Hewstone, 2018).

As researchers, political activists, community members, policy-makers, administrators, and others work to address these structural inequities, the present results indicate areas of intervention to reduce the effects of persistent sources of stigma. Our findings suggest that interventions that help to empower Black, Latino, and multiracial GBM to understand and process emotions (i.e., emotionally regulate) following experiences of stigma may be helpful to reduce the psychological impact of the intersecting stigma examined in this study. Psychotherapeutic approaches that incorporate techniques for promoting emotional exploration (Pachankis, Hatzenbeuhler, et al., 2015), such as those in dialectical behavioral therapy (Linehan et al., 2006), and take a culturally competent, strengths-based, client-centered approach (see Paniagua, 2013) may be particularly beneficial for improving psychological outcomes among Black, Latino, and multiracial GBM. In addition, clinical researchers seeking to inform the development of interventions will benefit from considering the positive aspects of intersecting identities in addition to experiences of stigma, as these aspects likely serve as buffers for several of the associations in the present model (Bowleg et al., 2016).

Conclusion

Overall, the present study suggests that intersecting stigma may be an important mechanism causing psychological and behavioral health inequities facing Black, Latino, and multiracial GBM in the United States (CDC, 2017). Specifically, our findings suggest that taking an intersectional approach to examining minority stress for Black, Latino, and multiracial GBM is critical for understanding and intervening upon the stress process initiated by racial and sexual minority stigma that leads to emotion regulation difficulties, internalizing symptoms, and heavy drinking among these men. The development, application, and/or adaptation of techniques for emotion regulation-focused and culturally competent therapy for Black, Latino, and multiracial GBM will be important, while structural interventions can, and should, play the central role in addressing current health inequities for Black, Latino, and multiracial GBM.

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